



 HammerheadArmor  Hammerheadarmor  HammerheadOff-RoadArmor

2021-2023 FORD F150 DEFENDER SERIES GRILLE GUARD *INSTALLATION INSTRUCTIONS*



SAFETY

Know safety, no injury. Know injury, no safety. ~Author Unknown

If there are any questions, call 1-855-HHTOUGH

READ ALL SAFETY INSTRUCTIONS BEFORE INSTALLATION

- FOLLOW ALL INSTRUCTIONS FOR PROPER ASSEMBLY
- WEAR APPROPRIATE EYE PROTECTION
- EXERCISE CARE WHEN LIFTING COMPONENTS
- USE APPROPRIATE TORQUE FOR BOLTS
- RE-TORQUE HARDWARE AT EVERY OIL CHANGE.

Suggested Torque Values For Steel Grade 5 Standard Bolts		
BOLT DIAMETER (INCH)	THREADS PER INCH	TORQUE (POUND - FEET)
1/4	20	7
5/16	18	14
3/8	16	25
7/16	14	40
1/2	13	60
9/16	12	88
5/8	11	120
3/4	10	200
7/8	9	302
1	8	466

Suggested Torque Values For Steel Grade 8.8 Metric Bolts		
BOLT DIAMETER (mm)	THREAD PITCH (mm)	TORQUE (POUND-FEET)
6	1.0	7
8	1.25	16
10	1.5	32
12	1.75	55
14	2.0	88
16	2.0	140
18	2.5	195
20	2.5	275
22	2.5	375
24	3.0	475



I. PARTS LIST

<p>Item 1 DEFENDER SERIES GG QTY. 1</p> 	<p>ITEM 2 LEFT UPPER MOUNT QTY. 1</p> 
<p>ITEM 3 RIGHT UPPER MOUNT QTY. 1</p> 	<p>ITEM 4 LEFT LOWER FRAME MOUNT QTY. 1</p> 
<p>ITEM 5 RIGHT LOWER FRAME MOUNT QTY. 1</p> 	<p>ITEM 6 LEFT FRAME BRACE QTY. 1</p> 
<p>ITEM 7 RIGHT FRAME BRACE QTY. 1</p> 	<p>ITEM 8 LIGHT BAR COVER AND MOUNTS QTY. 1</p> 
<p>ITEM 9 HARDWARE KITS</p> <ul style="list-style-type: none"> ✓ HARDWARE KIT #57 (60K-56-0057) ✓ HARDWARE KIT #158 (60K-56-0158) ✓ HARDWARE KIT #208 (60K-56-0208) ✓ HARDWARE KIT #229 (60K-56-0229) ✓ SENSOR HARNESS EXTENSION 	<p>ITEM 10 SENSOR KIT QTY. 1</p> 



REMOVE CONTENTS FROM BOX AND VERIFY ALL PARTS ARE PRESENT.
If there are any questions, call 1-855 HHTOUGH or email HHORDERS@hammerheadarmor.com

II. TOOL LIST

- ✓ 2 people required
- ✓ Basic tool set
- ✓ Blue masking tape
- ✓ Torx 30 bit
- ✓ 10mm wrench
- ✓ 3/8" wrench
- ✓ 13mm socket
- ✓ 15mm socket
- ✓ 21mm socket
- ✓ 3/4" socket
- ✓ Ratchet extension

III. VEHICLE PREPARATION

1. Park vehicle on level surface.
2. Engage parking brake and disconnect battery.
3. Using blue masking tape, mask along the profile of your truck above the bumper. This will help protect your truck from any accidental scratches.

IV. REMOVAL OF OE BUMPER

1. Unplug the fog lights and adaptive cruise control (if applicable). The harness is located above the right frame rail. Pull up on grey handle to disconnect harness.



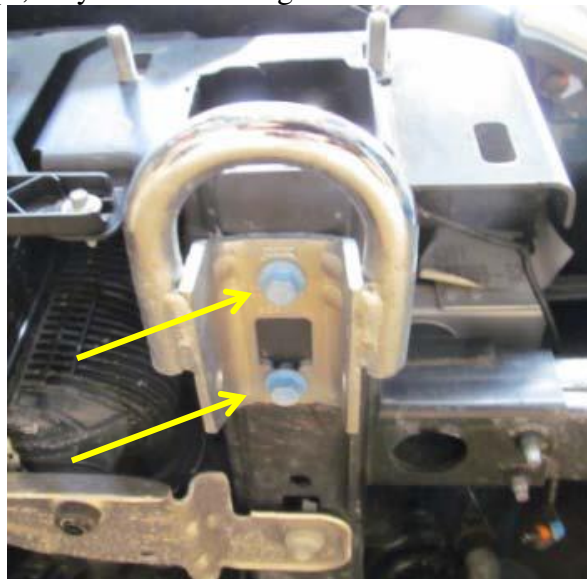
- Using a 21mm socket, remove six nuts attaching OE bumper to frame. (three per side) Set hardware aside. Remove bumper and set aside.



- Remove OE tow hook shroud by pulling away from the truck. (Both sides)



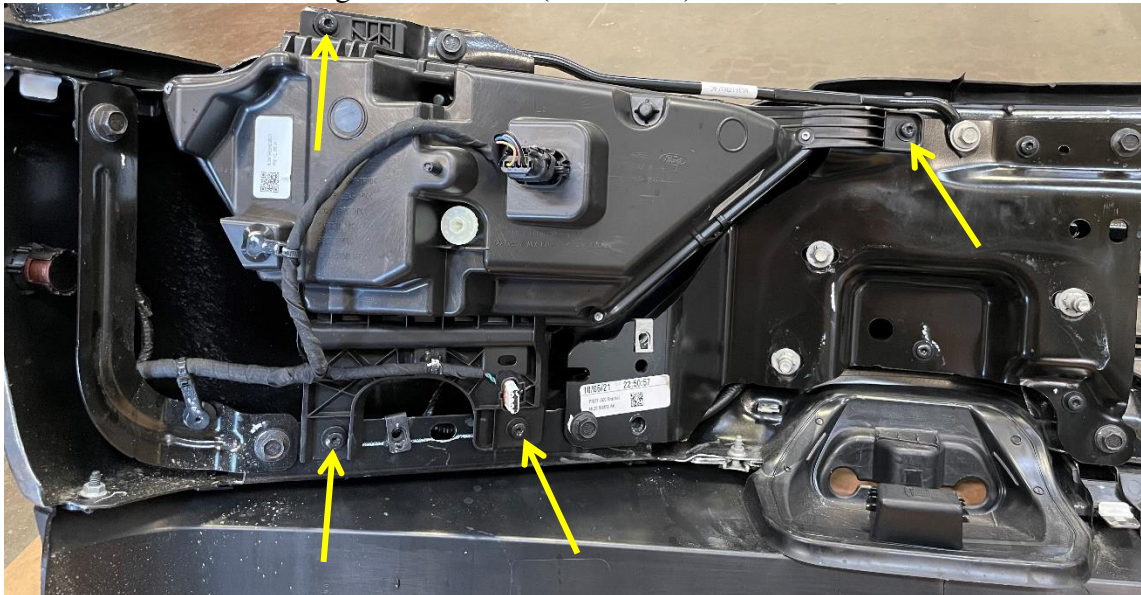
- Using a 15mm socket, remove 2 bolts attaching OE tow hook to frame. Set tow hook aside (both sides). Keep the bolts and nut strips, they will be used again.



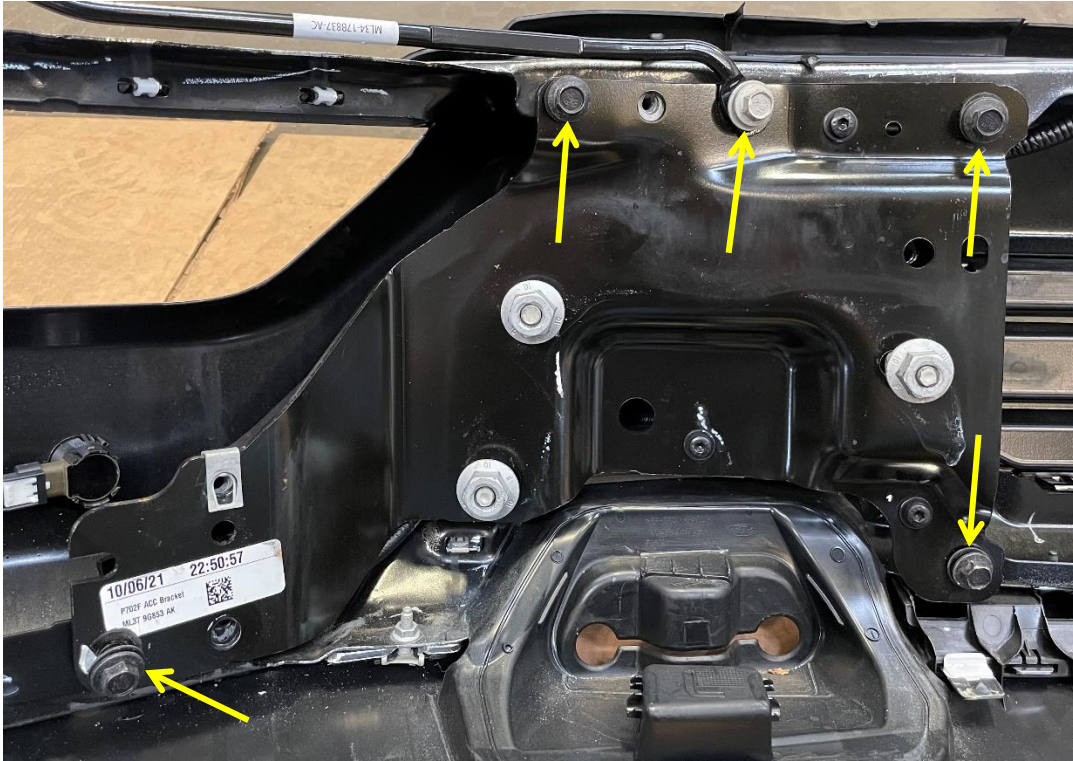
5. **FOR TRUCKS EQUIPPED WITH FRONT SENSORS:** Lay OE bumper face down on a carpeted surface or a piece of cardboard. Using a 13mm socket, remove three bolts holding lower valence module to bumper. Carefully unplug harness from module. (Both Sides) Remove lower valence and set aside.



6. Using a torx 30 drive, remove four bolts holding OE fog lights in bumper. Carefully unplug fog lights from harness. Remove housing and set aside. (Both sides)



7. Using a 13mm socket, remove 5 bolts holding OE mounting bracket to bumper. Remove and set aside. (Both sides)



8. Remove center two sensors and sensor retainers. Note which side each comes from and the orientation in which they are installed.
9. Plug in the sensor extension harness to the OE harness. Route the extension harness out of the top of the bumper and reinstall the bumper mounts.
10. Re-assemble the OE bumper by reversing instructions in removal steps 5-7.

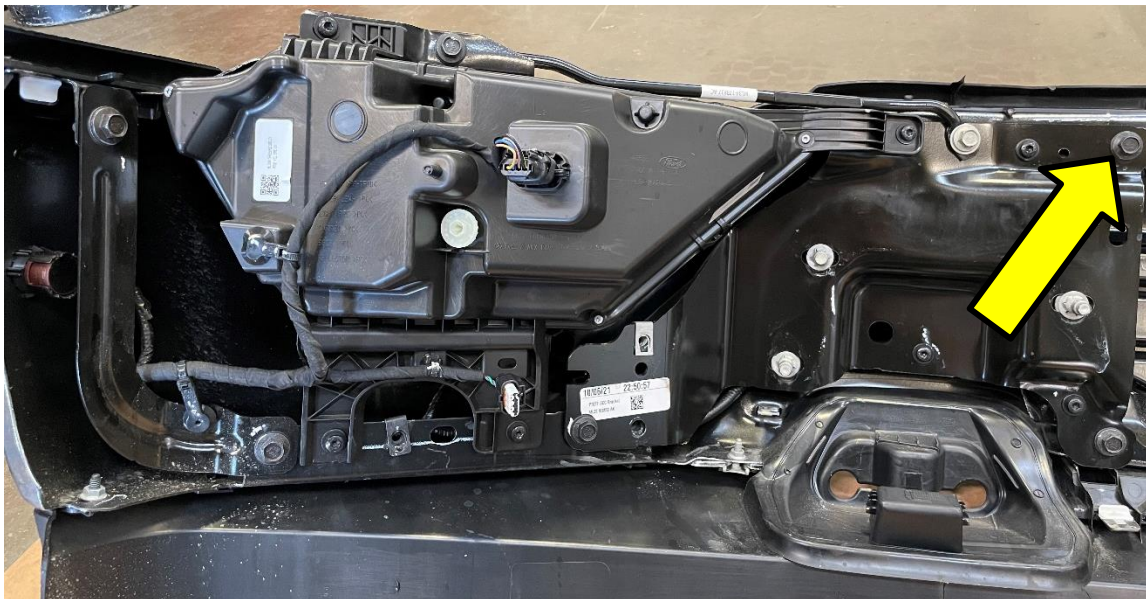
V. INSTALLATION OF HAMMERHEAD GRILLE GUARD

1. Lay grille guard face down on a carpeted surface or a piece of cardboard. Install all lights in grille guard with brackets and hardware provided by light manufacturer. Light bar brackets are provided alongside hardware kit #57 to install single row 20" light bar into grille guard. If not installing single row 20" light bar, use a 3/8" wrench and hardware in hardware kit #158 to install light bar cover to grille guard.
2. Install any HammerHead Armor accessories onto grille guard at this time using hardware and instructions supplied in those kits. Using a 3/4" socket or wrench and hardware in hardware kit #208, install bolt – on headlight guards to grille guard at this time. (*if applicable*)

3. Install the provided grommets into the grille guard sensor holes. Using a dab of soap, lube the sensor and press it into the grille guard in the same location as it came out the bumper. Install the sensor clip as shown to retain each sensor.



4. Using a 13mm socket, remove the upper OE bolt on the inside of the OE bumper as pictured below. Install left upper mount (*Item 2*) using M8 hardware supplied in hardware kit #229 with notched tab of upper mount on the OE bumper side. Ensure upper mount fits snug to top of OE bumper and curves away from the center of the truck. Repeat for other side.



5. Place nut-strips from step 4 of OE bumper removal instructions into frame of vehicle as removed from vehicle. Hand thread bolts from the same OE bumper removal step into nut strips. Re-install OE bumper by reversing instructions found in step 2 of OE bumper removal instructions.
Note – do not re-install OE tow hook shroud.



6. Carefully remove tow hook bolts from step 5 while ensuring not to move nut strip within frame of vehicle. Install left and right lower frame mounts in between OE tow hooks and frame of vehicle using OE hardware as pictured below. Do not fully tighten. *Note – flange should jog towards outside of vehicle.*



7. Ensure width of frame mounts do not exceed 41 ¼” wide from outside of flange to outside of flange.



8. Install Defender Grille guard onto truck. The mounts will go to the inside. Use hardware kit #208 to bolt the frame mounts to the Defender Grille Guard. The carriage head will go to the outside.
9. Align grille guard to the truck and tighten all hardware to the suggested torques listed above. If you have sensors installed, plug in sensors. Plugs are provided in install kit to fill holes in square tubing or sensor cutouts (if applicable).



**Congratulations! Your product installation is now complete.
Thank you for your purchase!**